

specimen in the Paris Museum, which I considered to be the type of Lesson's *C. squamicolle*, was really the Malaccan species; but a recent examination of this bird has proved to me that it is no other than the Javan *C. mentale*. The species being therefore without a title, I name it after Mr. A. O. Hume, to whom all lovers of Indian ornithology must ever feel grateful.

The types are in my collection, the ♂ being from Malacca, the ♀ from Klang, Salangore, April 7th, 1879 (*W. Davison*).

XXII.—Notes on Mexican Birds.

By OSBERT SALVIN and F. DUCANE GODMAN.

It has long been evident to us during our work on the birds of Mexico and Central America that our knowledge of the ornithology of Northern and Central Mexico was most imperfect, and that materials for forming any exact conclusions as to the boundaries of the Nearetic and Neotropical Regions were altogether wanting. The completion of the Botany of the 'Biologia Centrali-Americana' enabled Mr. Hemsley to indicate in a general way where this boundary lies, so far as plants are concerned, and it became a matter of increasing interest to see how far the zoological boundaries conformed thereto. But in the present notes it is not our purpose to discuss so much the question of boundaries, which will be fully gone into on another occasion, as to make known various matters relating to many birds which have come under our notice from the districts in question, with incidental remarks upon the more general subject.

In December of 1887 Godman arrived in Mexico by way of New York and El Paso and the Mexican Central Railway, and remained in the country till May of the following year: during this time he travelled over a portion of Southern Mexico and made a short trip in Yucatan. In all his excursions he had collectors with him. Independent expeditions were also organized to various points. Mr. W. B. Richardson, of Boston, after collecting for a short time in the neigh-

bourhood of Vera Cruz, proceeded by sea to Tampico, with instructions to work the tropical forest northwards in the direction of the Rio Grande. This he carried out, and after spending some time in the neighbourhood of Tampico itself, he travelled northwards nearly parallel to the coast as far as Soto la Marina, when, having left the forest behind him, he turned westward to Ciudad Victoria, and thence into the forest-clad mountains of the Eastern Sierra Madre, and reached an elevation of 5000 feet above the sea and upwards. He then returned direct to Tampico, and leaving the coast he went westward to San Luis Potosi, Aguas Calientes, Zacatecas, and the Sierra of Valparaiso and the mountains beyond; thence he returned home.

Mr. F. B. Armstrong, of Corpus Christi, Texas, crossed the Rio Grande at Laredo, and thence travelled to Monterey, Montemorelos, the most southern point visited by him being close to Ciudad Victoria; the district worked by him thus joining Mr. Richardson's.

Mr. William Lloyd, of Marfa, Texas, crossed the Rio Grande at Presidio del Norte and proceeded to Chihuahua, and thence went to Alamos and the western slope of the Sierra Madre of Sonora and Northern Sinaloa, and returned by a more southern route to Chihuahua.

Mr. and Mrs. Herbert H. Smith spent some time at Teapa, in the province of Tabasco, subsequently at Atoyac, on the railway between Vera Cruz and Mexico city, and lastly in the State of Guerrero on the Sierra Madre del Sur, between the Rio Mescala and the port of Acapulco on the Pacific.

Señor Ferrari-Perez made a large collection of birds from the environs of the city of Mexico itself, which we have had the opportunity of examining.

On leaving Mexico, one of Godman's collectors, Mateo Trujillo, made an excursion from Jalapa to the forests of the Cofre de Perote and to the slopes of the Cordillera in the direction of Misantla.

It is from an examination of the results of these collections that the following notes have been derived.

CATHARUS MEXICANUS.

Mr. Ridgway (Proc. U.S. Nat. Mus. x. p. 505) has recently described a *Catharus* from Costa Rica under the name of *C. fumosus*, and with it associates the bird from the State of Panama, and draws a comparison between it and a Guatemalan specimen attributed to *C. mexicanus*. He further expresses his opinion that the birds from Costa Rica and Veragua, referred by us (B. C.-A., Aves, i. p. 6, pl. 2. f. 1) to *C. mexicanus*, belong to this new form. Trujillo's collection adds five specimens to the ten we previously had for examination, so that we now have before us nine specimens from Mexico, three from Guatemala, one from Costa Rica, and two from the State of Panama. Amongst these we do not find a single one that at all suggests the possibility of there being two species represented amongst them. There is some variation in the coloration of the upper surface, and there is a sexual difference in the colour of the head, and this is all. The darkest of our specimens is one from Guatemala, the lightest is from Mexico. We have not seen Mr. Ridgway's specimen; but of this we are satisfied, that *Catharus mexicanus* has an uninterrupted range from Eastern Mexico to the State of Panama. Trujillo's specimens were all obtained in the neighbourhood of Jalapa.

† HARPORHYNCHUS OCELLATUS.

This well-marked species has hitherto only been known to us from two specimens obtained in the State of Oaxaca, and it has always been considered one of the rarest of Mexican birds. Señor Ferrari-Perez's collection contains several examples, all shot in the neighbourhood of the city of Mexico, showing that the bird must have been strangely overlooked by collectors for many years.

| CAMPYLORHYNCHUS RUFINUCHA.

In our 'Biologia Centrali-Americana,' Aves, i. p. 64, we treated this name as a synonym of *C. capistratus*; but a series of specimens obtained in the neighbourhood of the town of Vera Cruz now convinces us that this is an error, and that the two birds are perfectly distinct, as was urged

by Professor Baird, and again more recently by Mr. Ridgway (Proc. U.S. Nat. Mus. x. p. 507). When we wrote on this bird we had only a single worn specimen before us; but with the series now at our command it is evident that *C. rufinucha* may readily be distinguished by its spotted under surface and its barred crissum. Mr. Ridgway, in the paper just referred to, separates the Guatemalan and Honduras forms of *C. capistratus* under the name of *C. castaneus*, the back and scapulars being of an entirely uniform chestnut. This is the bird figured by Des Murs (Icon. Orn. pl. 63), who had access to Lesson's type of *C. capistratus* in the Paris Museum. We have before us a specimen from Realejo, shot while changing the dorsal feathers from a striped or variegated character to one wholly chestnut; other birds from Guatemala are changing in a similar way; furthermore, our specimen from the Motagua valley and another from Guatemala and one from Costa Rica agree in having the dorsal plumage distinctly variegated, so that not only is there no difference in the distribution between *C. capistratus* and *C. castaneus*, but our specimens suggest that the characters upon which they are founded are possibly due to age, season, or sex. Now that *C. rufinucha* is established as a species, we much doubt if *C. capistratus* is found in Mexico at all; we have never seen a specimen, nor has Mr. Ridgway.

Concerning the various species of *Campylorhynchus* in Mexico, we find that *C. zonatus* is by far the commonest on the eastern flank of the mountains, being abundant at Teapa and thence northward to Misantla. In Mexico, at least, it is not confined to the highlands, but approaches the sea both at Vera Cruz and Misantla.

C. bruneicapillus is the only species in the Rio Grande valley, where it is abundant, and thence it spreads southwards to the central States of Aguas Calientes and San Luis Potosi. *C. jocosus* proves to be the prevalent species in the Sierra Madre del Sur, where *C. humilis* also occurs nearer the coast. *C. pallescens* is the only one found in the hills surrounding the Valley of Mexico; and lastly, *C. gularis*, of which the exact locality has been hitherto unknown, proves

to be a bird of the western slope of the Sierra Madre of Sonora, where Mr. Lloyd obtained specimens.

THRYOTHORUS BERLANDIERI.

We have now many specimens of this species from the States of Nuevo Leon and Tamaulipas, as far south as the Eastern Sierra Madre above Ciudad Victoria. These all agree accurately with the description of and comparison with *T. ludovicianus* given by Baird (Birds of North Am., p. 362). Specimens recently received from Corpus Christi, Texas, appear to belong to the true *T. ludovicianus*, so that it is doubtful if *T. berlandieri* crosses the Rio Grande.

AURIPARUS FLAVICEPS.

This characteristic bird of the Rio Grande valley was found by Mr. Richardson at Soto la Marina, Xicotencal, and by Mr. Lloyd at Julines, in Chihuahua, and Quiriego, in Sonora, so that the bird is now thoroughly established as a species of Northern Mexico.

ANTHUS SPRAGUEI.

This species has already been recorded from Mexico, Don F. Ferrari-Perez having obtained a specimen at Puebla (Proc. U.S. Nat. Mus. ix. p. 136). Godman also secured a specimen close to the town of Vera Cruz.

HELINAIA SWAINSONI

is another interesting bird shot in the same neighbourhood, and is quite new to the Mexican list. The winter-quarters of this species were traced to Jamaica by Sir Edward Newton, but it has never previously been seen at this season so far westward, or, indeed, on any part of the mainland of Central or South America.

+ PARULA NIGRILORA.

This species was included in our fauna as a bird of the Rio Grande valley (Biol. C.-A., Aves, i. p. 121), but we had no specimens from the southern side of the river. We now have many examples from the States of Nuevo Leon and Tamaulipas, the most southern points being Tampico and Valles, in the State of San Luis Potosi. These all agree with typical specimens from the Rio Grande valley.

+ DENDRÆCA BRYANTI

was found by Mr. Richardson among the lagoons of Tampico, showing a considerable extension of its range along the shores of the Gulf of Mexico in this direction.

+ GEOTHLYPIS CUCULLATA, sp. n.

♂. Supra flavo-olivacea, pileo antico, loris et capitis lateribus nigerrimis: subtus læte flava; hypochondriis olivaceo lavatis; rostro nigro, pedibus corylinis: long. tota 4·5, alæ 2·1, caudæ 2·1, rostri a rictu 0·6, tarsi 0·8.

♀. Supra unicolor, loris et superciliis pallidioribus; subtus flava, pectore ochraceo tincto.

Hab. Mexico, Jalapa, Cofre de Perote (*M. Trujillo*).

This species is closely allied to *G. semiflava*, but is much smaller, with the exception of the tail, which hardly differs in length from that of the allied species. The black forehead does not extend so far back as in *G. semiflava*. There is no species at all like this in Mexico, the differences separating it from *G. melanops* and *G. speciosa* being very obvious.

+ CHLOROSPINGUS ALBIFRONS, sp. n.

Supra olivacea, capite summo unicolore brunneo; loris et macula suboculari nigris; fronte stricte et lunula postoculari albis; alis et cauda fusco-nigricantibus extrorsum olivaceo limbatis: subtus gula cervina; pectore ochraceo; abdomine medio pallide griseo; hypochondriis et crisso olivaceis; rostro nigro, pedibus plumbeis: long. tota 5·5, alæ 2·9, caudæ 2·5, rostri a rictu ·65, tarsi ·65.

Hab. Mexico, Omilteme in Sierra Madre del Sur, altitude 8000 feet (*Mrs. H. H. Smith*).

Mrs. Smith's collection contains several specimens of this interesting species, all obtained in the high range called the Sierra Madre del Sur, in the Mexican State of Guerrero. Its nearest ally is *C. albitemporalis* of Costa Rica and the Andes, but it differs in having a narrow row of white frontal feathers, in the less extent of the postocular white spot, and in its more ochraceous chest. From *C. ophthalmicus*, which takes its place in the eastern highlands of Mexico, it differs in many respects, such as the paler colour of its head, the

less amount of white behind the eye, the fawn-coloured throat, and the ochraceous chest.

The young birds, of which there are two in the collection, have the head of nearly the same colour as the back, and the marks round and below the eye are not nearly so well defined.

PITYLUS CELÉNO.

Deppe's specimens of this species were obtained at Papantla, and this was the only record (Biol. C.-A., Aves, i. p. 332, pl. 24) we could find of its exact habitat. Godman secured examples of both sexes near Misantla, and Richardson's collection contained many specimens both from Tampico and the eastern Sierra Madre above Ciudad Victoria, between which place and Montemorelos Armstrong also found it, so that its northern range probably extends to the extreme limits of the forest-clad slopes of this mountain range.

AMPHISPIZA QUINQUESTRIATA.

This beautiful species was hitherto only known to us from a single specimen said to have been obtained in Mexico, but the precise locality of which had not been recorded. Mr. Lloyd has recently sent us a single female specimen from Nuri in Sonora, shot on 22nd April, 1888.

PEUCÆA CASSINI.

When writing on this bird (*tom. cit.* p. 391) we were not able to speak positively of its occurrence south of the Rio Grande, but we now have a good series of examples from the frontier States of Nuevo Leon and Tamaulipas.

PEUCÆA MEGARHYNCHA, sp. n.

Supra brunnea; plumis omnibus medialiter rufescentibus, rachidibus nigris; capite summo castaneo medialiter griseo intermixto; loris albis; capitis lateribus griseis: subtus albida, hypochondriis et crisso pallide brunneis; stria utrinque mystacali nigra; rostro nigricanti-plumbeo, pedibus carneis: long. tota 6·0, alæ 2·5, caudæ 2·5, rostri a rictu 0·65, tarsi 0·85.

Hab. Mexico, Santa Ana in Sonora (*W. Lloyd*).

Obs. *P. boucardi* proxima et affinis, sed rostro multo majore et colore suo plumbeo facile distinguenda.

Mr. Lloyd has sent us a single female specimen of this *Peuceea*, which seems certainly distinguishable from any of the allied forms of which *P. boucardi* and *P. ruficeps* are representatives. Though its size is not greater than that of *P. boucardi*, the bill recalls that of some species of *Hæmophila*. The colour of the bill is probably due to season, the type specimen having been shot April 18th, 1888; this can only be ascertained on receipt of further specimens.

- *HÆMOPHILA ACUMINATA*.

Mrs. Smith's collection contains numerous specimens of this little-known species, all of them shot at various places on the Sierra Madre del Sur in the State of Guerrero, where also the equally rare

HÆMOPHILA HUMERALIS
occurs abundantly.

HÆMOPHILA SUPERCILIOSA
proves to be an exceedingly common species in the environs of Mexico, and also near Puebla to the southward, and on Popocatepetl up to an elevation of from 10,000 to 12,000 feet; it also occurs on the Cofre de Perote, where it breeds and whence we have young birds in first plumage shot in July. It is likewise found in the States of San Luis Potosi and Aguas Calientes, and has also been recorded from the State of Durango.

RHYNOPHANES MACCOWNI.

We were unable (*tom. cit.* p. 420) to record this species from Mexico with certainty; we now know of its occurrence well within our border, as Mr. Lloyd obtained specimens at Julines near the city of Chihuahua.

† *DELATTRIA MARGARITÆ*, sp. n.

D. henrici affinis, sed gutture violaceo (nec rosaceo) facile distinguenda.

Hab. Mexico, Omilteme in Sierra Madre del Sur, alt. 8000 feet (*Mrs. H. H. Smith*).

Mrs. Smith's collection contained several specimens of this *Delattria*, which is probably confined in its range to the

mountain chain called the Sierra Madre del Sur, which runs nearly parallel to the Pacific, being separated from the main cordillera by the Mescala valley, and attains an altitude of from 9000 to 10,000 feet. The species is clearly distinct from the well-known *Delattria henrici*, which is not uncommon in Guatemala and also occupies some of the higher ranges of Mexico on the eastern side.

We have named this species after Mrs. Herbert Smith, whose energy has added much to our knowledge of the distribution of Mexican birds.

† *LACHE NITIDA*, sp. n.

- ♂. Supra nitenti-viridis, capite summo nitenti-cyaneo, cauda chalybeo-cyanea, rectricibus intermediis late fusco terminatis: subtus late cyanea; abdomine viridi tincto; rostro carneo, apice nigricante: long. tota 3·3, alæ 2·0, caudæ rectr. med. 0·8, rectr. lat. 1·3, rostri a rictu 0·85.
- ♀. Supra viridis, subtus fusca, pectore et hypochondriis viridi lavatis; caudæ dimidio basali viridi, dimidio apicali chalybeo-cyaneo, rectricibus duabus utrinque externis albo terminatis; rostro nigricante, mandibula (præter apicem) carnea.

Hab. Mexico, Acapulco, Rio Papagaio, State of Guerrero (Mrs. H. H. Smith).

This beautiful species is most nearly allied to *I. doubledayi*, but the whole throat and breast are of a richer blue, and the head also is shining blue, not green. The specimen of *I. doubledayi* with which we have compared it is stated to be from Chinantla, and is that figured in Gould's 'Monograph of the Humming-Birds.'

Mrs. Smith's collection contains several specimens of this Humming-bird, all of which were obtained between Acapulco and the foot of the Sierra Madre del Sur in the State of Guerrero.

+ *AULACORHAMPHUS PAVONINUS*.

Pteroglossus pavoninus, Gould, P. Z. S. 1835, p. 158; id. Mon. Rhamph. ed. 1, t. 30.

Pteroglossus wagleri, Sturm, J. Gould's Monogr. d. Rhamph. Heft 2, t. 6 (1841).

Aulacorhamphus wagleri, Gould, Mon. Rhamph. ed. 2, pl. 48; Selater, P. Z. S. 1859, p. 384.

Of this rare species the type-specimen in the Munich Museum for many years was the only one known; but in 1858, M. Boucard obtained an example at Sacatepec in the Mexican State of Oaxaca; and we now find another in Mrs. Smith's collection which was shot at Amula, a village in the State of Guerrero, at an elevation of about 6000 feet above the sea, in the Sierra Madre del Sur. The species is very closely allied to *A. prasinus*, but may at once be distinguished by having the base of the maxilla black, with the exception of the yellow line which separates it from the naked orbit. We also notice that the frontal feathers in *A. pavoninus* are yellowish at the base, a feature not seen in the allied species.

There can be no doubt that *A. pavoninus* is the right name to use for this bird, notwithstanding Sturm's statement as to its application by Wagler in the Munich Museum.

CHRYSTOTIS VIRIDIGENALIS.

Chrysotis viridigenalis, Cassin, Proc. Ac. Sc. Phil. 1853, p. 371; Journ. Ac. Phil. iii. p. 153, pl. 13; Souancé, Icon. Perr. pl. 31 (lower figure).

Chrysotis coccineifrons, Finsch, Papag. ii. p. 540 (partim).

The origin of *C. viridigenalis* of Cassin has always been a matter of doubt, and till recently a menagerie specimen in the possession of Mr. Selater, said to have come from Colombia, was the only one we had seen answering to the figure. It now turns out that the bird is not at all uncommon in eastern Mexico from Misantla northward to the limit of the forest districts. Godman obtained several specimens at Misantla during his recent expedition, and both Richardson and Armstrong procured numerous examples, the most northern point recorded being Montemorelos, in lat. 25° 15' N., on the Eastern Sierra Madre.

Besides *C. viridigenalis*, the following Parrots are found in this region, namely, *C. autumnalis*,[†] *C. levaillanti*,[†] *Ara militaris*,[†] *Conurus holochlorus* and *C. aztec*. None of these reach the banks of the Rio Grande, and the limits of their

northern distribution may be almost said to define the boundary between the Nearctic and Neotropical Regions. On the western side of Mexico the Psittacidae are represented by *Chrysotis finschi*, *C. albifrons*, and *Psittacula cyanopyga*. These all extend along the western flank of the mountains at least as far as Alamos in Sonora, and in like manner may be said to define the regional boundary on that side of Mexico. So far as the central country is concerned, if we except *Rhynchopsitta pachyrhyncha*, which is probably only found on the Western Sierra Madre, Parrots do not occur nearly so far north. The northern distribution of Parrots, thus sketched out, is practically that also of the Trogonidae, *Trogon ambiguus* having a northern extension on either side of the mountains precisely like that of the Parrots just mentioned. It is the same on the eastern side with the Momotidae, *Momotus caeruleiceps* being found at least as far north as Montemorelos, in Nuevo Leon. It is the termination, too, of the Tinamidæ, and also of the Cracidæ, with the exception of *Ortalis vetula* sive *maccalli*, which goes a little farther north and crosses the Rio Grande into Texas. Of Passeres the same boundary limits *Pachyrhamphus* on both sides and *Pitylus celæno* on the east. From this it will be seen that the line of demarcation between the two regions, so far as the birds are concerned, is capable of being defined with some precision, and will be found to coincide with the northern limits of the forests. These on the eastern side leave the coast a little north of Tampico, and continue in a narrow belt along the eastern flank of the mountains in a nearly northern direction almost to Monterey. On the western side a similar state of things is found, and we meet with a number of southern forms extending along the western slope of the mountains as far as Alamos.

● CYRTONYX SALLÆI.

Cyrtonyx sallæi, J. Verr. in Thompson's Arc. Nat. p. 35, pl. 4.

This species was fully described by Jules Verreaux; but up to the present time we have not been able to discover the

precise part of Mexico where it is found, and our ignorance on this point has led to some doubts as to the validity of the species. Mrs. Smith's collection contains a male example, which was shot in August, 1888, at Amula in the State of Guerrero, at an altitude of 6000 feet above the sea. Its distinctness both from *C. massena* and from *C. ocellatus* is quite obvious, and is fully discussed in Verreaux's paper. We are still unacquainted with *C. sumichrasti* of Lawrence from Tehuantepec, which seems to be distinct from all the above-mentioned species.

XXIII.—*Notices of recent Ornithological Publications.*

49. *Buller's 'Birds of New Zealand.'*

[A History of the Birds of New Zealand. By Sir Walter Lowry Buller. Parts VII.–XI. 1888. Folio. London.]

Since we last noticed this important work Parts VII. to XI. have been published, and the whole will probably be complete before this number of 'The Ibis' is issued. Part VII. finished the first volume and contains the title-page, preface, and introduction. Parts VIII., IX., and X. commence the second volume and contain illustrations of the following species:—

Charadrius obscurus, *C. bicinctus*, *Thinornis novæ zealandiæ*, *Anarhynchus frontalis*, *Recurvirostra novæ ho'landiæ*, *Himantopus leucocephalus*, *H. novæ zealandiæ*, *Gallinago pusilla*, *Limosa novæ zealandiæ*, *Larus bulleri*, *L. scopulinus*, *Sterna frontalis*, *S. antarctica*, *Porphyrio melanonotus* and a variety, *Notornis mantelli*, *Rallus philippensis*, *Ortygometra tabuensis*, *Ocydromus greyi*, *O. fuscus*, *O. australis*, *O. brachypterus*, *Ardea egretta*, *A. sacra*, *Botaurus pæciloptilus*, *Phalacrocorax varius*, *P. imperialis*, *P. punctatus*, *P. featherstoni*, and *Dio-medea exulans*.

The Introduction is very copious and well worthy of careful study. The extraordinary extinct avifauna of New Zealand is first discussed. Quoting the late Judge Maning, the author states that "the Moas still existed in considerable